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| EXAMINER | |
|---|---|
| DUNWOODY, AARON M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3679 | |

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/700,484 | SANTI ET AL. | |
| | Examiner | Art Unit | |
| | Aaron M. Dunwoody | 3679 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) *35-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34 and 45-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5505502, Smith et al in view of 2282 Thiokol High Performance Polysulfid Joint Sealant document.

In regards to claim 1, Smith et al disclose a radially expandable threaded tubular assembly comprising:

a radially expandable male threaded element having external male threading and a first free end, the external male threading including a first incomplete thread and a first hooked thread, the first incomplete thread being located at least adjacent the first free end of the male threaded element;

a radially expandable female threaded element having internal female threading and a second free end, the internal female threading including a second incomplete thread and a second hooked thread, the second incomplete thread being located at least adjacent the second free end of the female threaded element, the female threaded element being threadedly engaged with the male threaded element. Smith et al does not disclose an elastomeric sealant. 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses an elastomeric sealant to provide a high performance

chemical resistant flexible joint sealant (page 1, col. 1, paragraph 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an elastomeric sealant to provide a high performance chemical resistant flexible joint sealant, as taught by 2282 Thiokol High Performance Polysulfid Joint Sealant document.

In regards to claim 2, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the elastomeric sealant is capable of being elongated at least about 45 percent after curing while remaining extended between and adhered to each of the external male threading and the internal female threading and has an elastic modulus less than about 2.0 MPa (290 p.s.i.).

In regards to claim 3, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the elastomeric sealant is capable of being elongated at least about 100 percent after curing while remaining extended between and adhered to each of the external male threading and the internal female threading and has an elastic modulus less than about 1.0 MPa (145 p.s.i.).

In regards to claim 4, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the elastomeric sealant is capable of being elongated at least about 400 percent after curing while remaining extended between and adhered to each of the external male threading and the internal female threading and has an elastic modulus between about 0.5 MPa (73 p.s.i.) and about 2.0 MPa (290 p.s.i.).

In regards to claim 5, Smith et al in view of 2282 Thiokol High Performance Polysulfid Joint Sealant document disclose the elastomeric sealant is adhered to each

of the external male threading and the internal female threading with an adhesion-to-rigid-substrate of at least 0.35 MPa (51 p.s.i.).

In regards to claim 6, Smith et al in view of 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the elastomeric sealant is adhered to each of the external male threading and the internal female threading with an adhesion-to-rigid-substrate of at least 0.7 MPa (102 p.s.i.).

In regards to claim7, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the elastomeric sealant is a greaseless elastomeric sealant.

In regards to claim 8, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the greaseless elastomeric sealant is capable of curing in the absence of oxygen and in the absence of humidity.

In regards to claim 9, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the greaseless elastomeric sealant is a polysulfide sealant or a polyurethane sealant.

In regards to claim 10, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the greaseless elastomeric sealant is a viscous paste or a liquid before curing and is a rubber-like solid after curing.

In regards to claim 11, Smith et al disclose the male threaded element and the female threaded element threadedly engage each other to form a flush joint connection.

In regards to claim 12, Smith et al disclose each of the first incomplete thread and the second incomplete thread has a perfect crest and an imperfect root.

In regards to claim 13, Smith et al disclose each of the first incomplete thread and the second incomplete thread is also a hooked thread.

In regards to claim 14, Smith et al disclose the first incomplete thread is the initial thread adjacent the first free end of the male threaded element, and the second incomplete thread is the initial thread adjacent the second free end of the female threaded element.

In regards to claim 15, Smith et al disclose at least one of the male threaded element and the female threaded element includes a torque shoulder.

In regards to claim 16, Smith et al disclose the torque shoulder is a reverse torque shoulder.

In regards to claim 45, Smith et al in view of 2282 Thiokol High Performance Polysulfid Joint Sealant document disclose an expandable sealed tubular joint comprising:

a pair of radially expandable elements each having threading at a free end thereof and coupled to one another, the threading including hooked incomplete threads being located at least adjacent the free ends; and

a sealing substance extending between and adhering to the threading of one radially expandable element and the threading of the other radially expandable element, wherein after a radial expansion of the coupled pair of radially expandable elements the sealing substance remains extended between and adhered to the threading of one radially expandable element and the threading of the other radially expandable element.

In regards to claim 46, 2282 Thiokol High Performance Polysulfid Joint Sealant document discloses the sealing substance is a greaseless elastomeric sealant that (i) is capable of being elongated at least about 100 percent while remaining extended between and adhered to the threading of one radially expandable element and the threading of the other radially expandable element, (ii) is adhered to the threading with an adhesion-to-rigid-substrate of at least 0.35 MPa (51 p.s.i.); and (iii) has an elastic modulus between about 0.5 MPa (73 p.s.i.) and about 2.0 MPa (290 p.s.i.).

Claims 17-34 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5505502, Smith et al in view of US patent 3822902, Maurer et al.

In regards to claim 17, Smith et al disclose a radially expandable threaded tubular assembly comprising:

a radially expandable male threaded element having external male threading and a first free end, the external male threading including a first incomplete thread and a first hooked thread, the first incomplete thread being located at least adjacent the first free end of the male threaded element;

a radially expandable female threaded element having internal female threading and a second free end, the internal female threading including a second incomplete thread and a second hooked thread, the second incomplete thread being located at least adjacent the second free end of the female threaded element. Smith et al does not disclose a first and second metallic coating. Maurer et al teach a first and second coating to ensure that the threads are thoroughly lubricated to protect against galling

(col. 4, lines 10-17). As Maurer et al relates to a connection to pipe joints, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a first and second coating to ensure that the threads are thoroughly lubricated to protect against galling, as taught by Maurer et al.

In regards to claim 18, Maurer et al disclose each of the first metallic coating and the second metallic coating is a ductile metal and has a yielding tension less than about 100 MPa (14.5 k.s.i.).

In regards to claim 19, Maurer et al disclose each of the first metallic coating and the second metallic coating is a ductile metal and has a yielding tension less than about 20 MPa (2.9 k.s.i.).

In regards to claim 20, Maurer et al disclose each of the first metallic coating and the second metallic coating allows a principal shear strain of at least about 100 percent without fracturing and without fissure propagation

In regards to claim 21, Maurer et al disclose one of the first metallic coating and the second metallic coating is an alloy, and the other of the first metallic coating and the second metallic coating is an alloy or a pure metal.

In regards to claims 22-28 and 47, Smith in view of Maurer et al disclose the claimed invention except for each of the first metallic coating and the second metallic coating being a pure metal contains 99.99 percent by weight of a single metal; and the single metal being selected from the group consisting of Copper, Aluminum, Lead, Zinc, Tin and Magnesium. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the first metallic coating and the second

metallic coating with a pure metal contains 99.99 percent by weight of a single metal, and the single metal being selected from the group consisting of Copper, Aluminum, Lead, Zinc, Tin and Magnesium, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

In regards to claim 29, Smith et al disclose the radially expandable male threaded element and the radially expandable female threaded element threadedly engage each other to form a flush joint connection.

In regards to claim 30, Smith et al disclose each of the first incomplete thread and the second incomplete thread has a perfect crest and an imperfect root.

In regards to claim 31, Smith et al disclose each of the first incomplete thread and the second incomplete thread is also a hooked thread.

In regards to claim 32, Smith et al disclose the first incomplete thread is the initial thread adjacent the first free end of the male threaded element, and the second incomplete thread is the initial thread adjacent the second free end of the female threaded element.

In regards to claim 33, Smith et al disclose at least one of the male threaded element and the female threaded element includes a torque shoulder.

In regards to claim 34, Smith et al disclose the torque shoulder is a reverse torque shoulder.

***Response to Arguments***

Applicant's arguments filed 6/13/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith et al to provide an elastomeric sealant to provide a high performance chemical resistant flexible joint sealant, as taught by 2282 Thiokol High Performance Polysulfid Joint Sealant document; and as Maurer et al relates to a connection to pipe

joints, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Smith et al to provide a first and second coating to ensure that the threads are thoroughly lubricated to protect against galling, as taught by Maurer et al.

In response to applicant's argument that Maurer et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Maurer et al relate to a connection to pipe joints.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., SET technology) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, the Applicant should not that metal threaded elements are fully capable of being expanded, and the claims of the instant application are not drawn to expanding said metal threaded elements.

Applicant argues that Smith et al '502 do not disclose any incomplete threads adjacent a free end. The Examiner disagrees. Smith et al '502 clearly illustrate an incomplete thread adjacent a free end which includes a lip. Therefore, Smith et al meet the claim limitations.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M. Dunwoody whose telephone number is 571-272-7080. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aaron M Dunwoody
Primary Examiner
Art Unit 3679

.amd